

SARDAR PATEL UNIVERSITY

Programme: B.Sc

Semester: II

Syllabus with effect from: November-2011

Paper Code: US02CBIO02		Total Credit: 2
Title of Paper: Thallophyta, Bryophyta & Pteridophyta		
Unit	Description in detail	Weightage (%)
I	Algae-General Characters, Life cycle of following examples with characters of each group in brief, Cyanophyta (Blue Green Algae): Nostoc, Chlorophyta (Green Algae) : Volvox, Zygnema, Phaeophyta (Brown Algae) : Ectocarpus Rhodophyta (Red Algae) : Batrachospermum, Economic Importance of Algae.	25%
II	Fungi - General Characters, Life cycle of Rhizopus, Yeast, Penicillium Edible mushrooms- Button Mushroom (Agaricus bisporous), Paddy straw mushroom (Volvariella), Oyster/Dhingri mushroom (Pleurotus), Nutritive value, Medicinal value of mushrooms, Lichens: Types . Foliose, Fruticose and Crustose, Internal structure of thallus, Economic Importance of Lichens Economic Importance of Fungi.	25%
III	Bryophyta - General Characters, Life cycle of Riccia - Occurrence, thallus morphology, Internal structure of thallus, Vegetative and Sexual reproduction, sex organs - antheridium and archegonium, fertilization, Sporophyte, Spores (Morphology, dispersal, germination) Anthoceros - Occurrence, morphology, Internal structure of thallus, Vegetative and Sexual reproduction, structure of mature antheridium and archegonium, Sporophyte structure, dehiscence, of capsule, Spore germination Funaria - Occurrence, Plant morphology, Structure of antheridial branch, mature antheridium, archegonial branch, mature archegonium, fertilization, Sporophyte plant (foot, seta, capsule) detailed structure of capsule with diagram, Spore dispersal mechanism and germination.	25%
IV	Pteridophyta - General Characters, Distribution, study of vegetative and reproductive parts of Lycopodium (Sporophyte plant, stem internal structure, strobilus, gametophyte), Equisetum (Sporophyte plant, stem internal structure, cone, gametophyte), Nephrolepis (Sporophyte plant, stem internal structure of fern sorus, sporangium, prothallus).	25%

Basic Text & Reference Books:

- Gangulee S. C. Das K. S. Dutta C.D and Kar A. K College Botany Vol. I
- Smith. G. M . Cryptogamic Botany Vol.I
- Vasishtha. B. R . Botany for Degree students .Vol.I Algae
- Alexopoulos. C.J . Introductory Mycology
- Bessey. E.A . Morphology and Taxonomy of Fungi
- Dubey H. C . An Introduction to Fungi
- Gangulee, S. C. Das, K. S. Dutta, C. D. and Kar, A. K. - college Botany Vol.1
- Parihar N. S. –Bryophyta
- Prem Puri .Bryophyta
- Parihar N. S. .Pteridophyta
- Smith G.M. .Cryptogamic Botany Vol.I and II
- Vasishtha, B. R. .Botany for Degree Students: Vol.II Fungi
- Vasishtha, B. R. .Botany for Degree Students: Vol.III Bryophyta
- Vasishtha, P. C. .Botany for Degree Students: Vol.VI Pteridophyta Fungi
- Gangulee S. C. Das, K. S. Dutta C.D. and Kar A.K College Botany Vol. II and III

